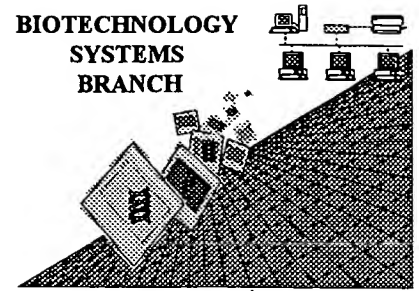


Fitzgerald

RAW SEQUENCE LISTING **ERROR REPORT**

BIOTECHNOLOGY
SYSTEMS
BRANCH



#A

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/183,543
Art Unit / Team No. : 1646
Date Processed by STIC: 1/4/99

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,

2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

ARTI SHAH 703-308-4212

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/183,543DATE: 01/04/1999
TIME: 11:58:52

Input Set: I183543.RAW

<p>This Raw Listing contains the General Information Section and up to first 5 pages.</p>

new format

1 <110> APPLICANT: Lin, Herbert Y.
2 Wang, Xiao-Fan
3 Weinberg, Robert A.
4 Lodish, Harvey F.
5 <120> TITLE OF INVENTION: Modulation of TGF-Beta by TGF-Beta Type III Receptor Poly
6 <130> FILE REFERENCE: WHI91-09FXA
7 <140> CURRENT APPLICATION NUMBER: US/09/183,543
8 <141> CURRENT FILING DATE: 1998-10-30
9 <150> EARLIER APPLICATION NUMBER: US 08/446,939
10 <151> EARLIER FILING DATE: 1995-05-23
11 <150> EARLIER APPLICATION NUMBER: US 08/311,703
12 <151> EARLIER FILING DATE: 1994-09-23
13 <150> EARLIER APPLICATION NUMBER: US 07/786,063
14 <151> EARLIER FILING DATE: 1991-10-31
15 <160> NUMBER OF SEQ ID NOS: 8
16 <170> SOFTWARE: FastSEQ for Windows Version 3.0
17 <210> SEQ ID NO 1
18 <211> LENGTH: 11
19 <212> TYPE: PRT
20 <213> ORGANISM: amino acid
21 <400> SEQUENCE: 1
22 Ile Leu Leu Asp Pro Asp His Pro Pro Ala Leu
23 1 5 10
24 <210> SEQ ID NO 2
25 <211> LENGTH: 11
26 <212> TYPE: PRT
27 <213> ORGANISM: amino acid
28 <400> SEQUENCE: 2
29 Gln Ala Pro Phe Pro Ile Asn Phe Met Ile Ala
30 1 5 10
31 <210> SEQ ID NO 3
32 <211> LENGTH: 8
33 <212> TYPE: PRT
34 <213> ORGANISM: amino acid
35 <400> SEQUENCE: 3
36 Gln Pro Ile Val Pro Ser Val Gln
37 1 5
38 <210> SEQ ID NO 4
39 <211> LENGTH: 9
40 <212> TYPE: PRT
41 <213> ORGANISM: amino acid
42 <400> SEQUENCE: 4
43 Phe Tyr Val Glu Gln Gly Tyr Gly Arg
44 1 5

Does Not Comply
Corrected Diskette Needed*Per new sequence Rules, the only valid responses are Artificial Sequence;**"Unknown," or the scientific name (Genus/species).**If "Artificial Sequence" or "Unknown," explain**source in**C2207-C2237 section*

PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/183,543

DATE: 01/04/1999

TIME: 11:58:52

Input Set: I183543.RAW

```

45 <210> SEQ ID NO 5
46 <211> LENGTH: 3237
47 <212> TYPE: DNA
48 <213> ORGANISM: genomic
49 <220> FEATURE:
50 <221> NAME/KEY: CDS
51 <222> LOCATION: (241)...(2799)
52 <400> SEQUENCE: 5
53      caggaggtga aagtccccgg cgggtccggat ggcgagcttg cactgcgctg ctgagctcgc      60
54      ggccgcctgc gcacactggg gggactcgct tcggctagta actcctccac ctgcggcgcg      120
55      acgaccggtc ctggacacgc tgcctgcgag gcaagttgaa cagtgcagag aaggatctta      180
56      aagctacacc cgacttgcca cgattgcctt caatctgaag aaccaaaggc tgttggagag      240
57      atg gca gtg aca tcc cac cac atg atc ccg gtg atg gtt gtc ctg atg      288
58      Met Ala Val Thr Ser His His Met Ile Pro Val Met Val Val Leu Met
59      1          5          10          15
60      agc gcc tgc ctg gcc acc gcc ggt cca gag ccc agc acc cgg tgt gaa      336
61      Ser Ala Cys Leu Ala Thr Ala Gly Pro Glu Pro Ser Thr Arg Cys Glu
62      20          25          30
63      ctg tca cca atc aac gcc tct cac cca gtc cag gcc ttg atg gag agc      384
64      Leu Ser Pro Ile Asn Ala Ser His Pro Val Gln Ala Leu Met Glu Ser
65      35          40          45
66      ttc acc gtt ctg tct ggc tgt gcc agc aga ggc acc acc ggg ctg cca      432
67      Phe Thr Val Leu Ser Gly Cys Ala Ser Arg Gly Thr Thr Gly Leu Pro
68      50          55          60
69      agg gag gtc cat gtc cta aac ctc cga agt aca gat cag gga cca gcc      480
70      Arg Glu Val His Val Leu Asn Leu Arg Ser Thr Asp Gln Gly Pro Gly
71      65          70          75          80
72      cag cgg cag aga gag gtt acc ctg cac ctg aac ccc att gcc tcg gtg      528
73      Gln Arg Gln Arg Glu Val Thr Leu His Leu Asn Pro Ile Ala Ser Val
74      85          90          95
75      cac act cac cac aaa cct atc gtg ttc ctg ctc aac tcc ccc cag ccc      576
76      His Thr His His Lys Pro Ile Val Phe Leu Leu Asn Ser Pro Gln Pro
77      100          105          110
78      ctg gtg tgg cat ctg aag acg gag aga ctg gcc gct ggt gtc ccc aga      624
79      Leu Val Trp His Leu Lys Thr Glu Arg Leu Ala Ala Gly Val Pro Arg
80      115          120          125
81      ctc ttc ctg gtt tcg gag ggt tct gtg gtc cag ttt cca tca gga aac      672
82      Leu Phe Leu Val Ser Glu Gly Ser Val Val Gln Phe Pro Ser Gly Asn
83      130          135          140
84      ttc tcc ttg aca gca gaa aca gag gaa agg aat ttc cct caa gaa aat      720
85      Phe Ser Leu Thr Ala Glu Thr Glu Glu Arg Asn Phe Pro Gln Glu Asn
86      145          150          155          160
87      gaa cat ctc gtg cgc tgg gcc caa aag gaa tat gga gca gtg act tcg      768
88      Glu His Leu Val Arg Trp Ala Gln Lys Glu Tyr Gly Ala Val Thr Ser
89      165          170          175
90      ttc act gaa ctc aag ata gca aga aac atc tat att aaa gtg gga gaa      816
91      Phe Thr Glu Leu Lys Ile Ala Arg Asn Ile Tyr Ile Lys Val Gly Glu
92      180          185          190
93      gat caa gtg ttt cct cct acg tgt aac ata ggg aag aat ttc ctc tca      864
94      Asp Gln Val Phe Pro Pro Thr Cys Asn Ile Gly Lys Asn Phe Leu Ser

```

PAGE: 3

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/183,543

 DATE: 01/04/1999
 TIME: 11:58:52

Input Set: I183543.RAW

95		195		200		205											
96	ctc	aat	tac	ctt	gcc	gag	tac	ctt	caa	ccc	aaa	gcc	gcc	gaa	ggg	tgt	912
97	Leu	Asn	Tyr	Leu	Ala	Glu	Tyr	Leu	Gln	Pro	Lys	Ala	Ala	Glu	Gly	Cys	
98		210				215					220						
99	gtc	ctg	ccc	agt	cag	ccc	cat	gaa	aag	gaa	gta	cac	atc	atc	gag	tta	960
100	Val	Leu	Pro	Ser	Gln	Pro	His	Glu	Lys	Glu	Val	His	Ile	Ile	Glu	Leu	
101		225				230					235					240	
102	att	acc	ccc	agc	tcg	aac	cct	tac	agc	gct	ttc	cag	gtg	gat	ata	ata	1008
103	Ile	Thr	Pro	Ser	Ser	Asn	Pro	Tyr	Ser	Ala	Phe	Gln	Val	Asp	Ile	Ile	
104					245					250					255		
105	gtt	gac	ata	cga	cct	gct	caa	gag	gat	ccc	gag	gtg	gtc	aaa	aac	ctt	1056
106	Val	Asp	Ile	Arg	Pro	Ala	Gln	Glu	Asp	Pro	Glu	Val	Val	Lys	Asn	Leu	
107			260						265					270			
108	gtc	ctg	atc	ttg	aag	tgc	aaa	aag	tct	gtc	aac	tgg	gtg	atc	aag	tct	1104
109	Val	Leu	Ile	Leu	Lys	Cys	Lys	Lys	Ser	Val	Asn	Trp	Val	Ile	Lys	Ser	
110			275					280						285			
111	ttt	gac	gtc	aag	gga	aac	ttg	aaa	gtc	att	gct	ccc	aac	agt	atc	ggc	1152
112	Phe	Asp	Val	Lys	Gly	Asn	Leu	Lys	Val	Ile	Ala	Pro	Asn	Ser	Ile	Gly	
113		290				295					300						
114	ttt	gga	aaa	gag	agt	gaa	cga	tcc	atg	aca	atg	acc	aaa	ttg	gta	aga	1200
115	Phe	Gly	Lys	Glu	Ser	Glu	Arg	Ser	Met	Thr	Met	Thr	Lys	Leu	Val	Arg	
116		305				310					315				320		
117	gat	gac	atc	cct	tcc	acc	caa	gag	aat	ctg	atg	aag	tgg	gca	ctg	gac	1248
118	Asp	Asp	Ile	Pro	Ser	Thr	Gln	Glu	Asn	Leu	Met	Lys	Trp	Ala	Leu	Asp	
119				325					330					335			
120	aat	ggc	tac	agg	cca	gtg	acg	tca	tac	aca	atg	gct	ccc	gtg	gct	aat	1296
121	Asn	Gly	Tyr	Arg	Pro	Val	Thr	Ser	Tyr	Thr	Met	Ala	Pro	Val	Ala	Asn	
122			340						345					350			
123	aga	ttt	cat	ctt	cgg	ctt	gag	aac	aac	gag	gag	atg	aga	gat	gag	gaa	1344
124	Arg	Phe	His	Leu	Arg	Leu	Glu	Asn	Asn	Glu	Glu	Met	Arg	Asp	Glu	Glu	
125			355					360						365			
126	gtc	cac	acc	att	cct	cct	gag	ctt	cgt	atc	ctg	ctg	gac	cct	gac	cac	1392
127	Val	His	Thr	Ile	Pro	Pro	Glu	Leu	Arg	Ile	Leu	Leu	Asp	Pro	Asp	His	
128		370					375					380					
129	ccg	ccc	gcc	ctg	gac	aac	cca	ctc	ttc	cca	gga	gag	gga	agc	cca	aat	1440
130	Pro	Pro	Ala	Leu	Asp	Asn	Pro	Leu	Phe	Pro	Gly	Glu	Gly	Ser	Pro	Asn	
131		385				390					395				400		
132	ggg	ggg	ctc	ccc	ttt	cca	ttc	ccg	gat	atc	ccc	agg	aga	ggc	tgg	aag	1488
133	Gly	Gly	Leu	Pro	Phe	Pro	Phe	Pro	Asp	Ile	Pro	Arg	Arg	Gly	Trp	Lys	
134				405					410					415			
135	gag	ggc	gaa	gat	agg	atc	ccc	cgg	cca	aag	cag	ccc	atc	gtt	ccc	agt	1536
136	Glu	Gly	Glu	Asp	Arg	Ile	Pro	Arg	Pro	Lys	Gln	Pro	Ile	Val	Pro	Ser	
137			420						425					430			
138	gtt	caa	ctg	ctt	cct	gac	cac	cga	gaa	cca	gaa	gaa	gtg	caa	ggg	ggc	1584
139	Val	Gln	Leu	Leu	Pro	Asp	His	Arg	Glu	Pro	Glu	Glu	Val	Gln	Gly	Gly	
140			435						440					445			
141	gtg	gac	atc	gcc	ctg	tca	gtc	aaa	tgt	gac	cat	gaa	aag	atg	gtc	gtg	1632
142	Val	Asp	Ile	Ala	Leu	Ser	Val	Lys	Cys	Asp	His	Glu	Lys	Met	Val	Val	
143		450					455					460					
144	gct	gta	gac	aaa	gac	tct	ttc	cag	acc	aat	ggc	tac	tca	ggg	atg	gag	1680

PAGE: 4

RAW SEQUENCE LISTING PATENT APPLICATION US/09/183,543

DATE: 01/04/1999
TIME: 11:58:52

Input Set: I183543.RAW

145	Ala Val Asp Lys Asp Ser Phe Gln Thr Asn Gly Tyr Ser Gly Met Glu	
146	465 470 475 480	
147	ctc acc ctg ttg gat cct tcg tgt aaa gcc aaa atg aat ggt act cac	1728
148	Leu Thr Leu Leu Asp Pro Ser Cys Lys Ala Lys Met Asn Gly Thr His	
149	485 490 495	
150	ttt gtt ctg gag tct ccc ctg aat ggc tgt ggt act cga cat cgg agg	1776
151	Phe Val Leu Glu Ser Pro Leu Asn Gly Cys Gly Thr Arg His Arg Arg	
152	500 505 510	
153	tcg acc ccg gat ggt gtg gtt tac tat aac tct att gtg gtg cag gct	1824
154	Ser Thr Pro Asp Gly Val Val Tyr Tyr Asn Ser Ile Val Val Gln Ala	
155	515 520 525	
156	ccg tcc cct ggg gat agc agt ggc tgg cct gat ggc tat gaa gac ttg	1872
157	Pro Ser Pro Gly Asp Ser Ser Gly Trp Pro Asp Gly Tyr Glu Asp Leu	
158	530 535 540	
159	gag tca ggc gat aat gga ttt cct gga gac ggg gat gaa gga gaa act	1920
160	Glu Ser Gly Asp Asn Gly Phe Pro Gly Asp Gly Asp Glu Gly Glu Thr	
161	545 550 555 560	
162	gcc ccc ctg agc cga gct gga gtg gtg gtg ttt aac tgc agc ttg cgg	1968
163	Ala Pro Leu Ser Arg Ala Gly Val Val Val Phe Asn Cys Ser Leu Arg	
164	565 570 575	
165	cag ctg agg aat ccc agt ggc ttc cag ggc cag ctg gat gga aat gct	2016
166	Gln Leu Arg Asn Pro Ser Gly Phe Gln Gly Gln Leu Asp Gly Asn Ala	
167	580 585 590	
168	acc ttc aac atg gag ctg tat aac aca gac ctg ttt ctg gtg ccc tcc	2064
169	Thr Phe Asn Met Glu Leu Tyr Asn Thr Asp Leu Phe Leu Val Pro Ser	
170	595 600 605	
171	cca ggg gtc ttc tct gtg gca gag aac gag cat gtt tat gtt gag gtg	2112
172	Pro Gly Val Phe Ser Val Ala Glu Asn Glu His Val Tyr Val Glu Val	
173	610 615 620	
174	tct gtc acc aag gct gac caa gat ctg gga ttc gcc atc caa acc tgc	2160
175	Ser Val Thr Lys Ala Asp Gln Asp Leu Gly Phe Ala Ile Gln Thr Cys	
176	625 630 635 640	
177	ttt ctg tct cca tac tcc aac cca gac aga atg tct gat tac acc atc	2208
178	Phe Leu Ser Pro Tyr Ser Asn Pro Asp Arg Met Ser Asp Tyr Thr Ile	
179	645 650 655	
180	atc gag aac atc tgt ccg aaa gac gac tct gtg aag ttc tac agc tcc	2256
181	Ile Glu Asn Ile Cys Pro Lys Asp Asp Ser Val Lys Phe Tyr Ser Ser	
182	660 665 670	
183	aag aga gtg cac ttt ccc atc ccg cat gct gag gtg gac aag aag cgc	2304
184	Lys Arg Val His Phe Pro Ile Pro His Ala Glu Val Asp Lys Lys Arg	
185	675 680 685	
186	ttc agc ttc ctg ttc aag tct gtg ttc aac acc tcc ctg ctg ttc ctg	2352
187	Phe Ser Phe Leu Phe Lys Ser Val Phe Asn Thr Ser Leu Leu Phe Leu	
188	690 695 700	
189	cac tgc gag ttg act ctg tgc tcc agg aag aag ggc tcc ctg aag ctg	2400
190	His Cys Glu Leu Thr Leu Cys Ser Arg Lys Lys Gly Ser Leu Lys Leu	
191	705 710 715 720	
192	ccg agg tgt gtg act cct gac gac gcc tgc act tct ctg gat gcc acc	2448
193	Pro Arg Cys Val Thr Pro Asp Asp Ala Cys Thr Ser Leu Asp Ala Thr	
194	725 730 735	

PAGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/183,543

DATE: 01/04/1999

TIME: 11:58:52

Input Set: I183543.RAW

```

195   atg atc tgg acc atg atg cag aat aag aag aca ttc acc aag ccc ctg      2496
196   Met Ile Trp Thr Met Met Gln Asn Lys Lys Thr Phe Thr Lys Pro Leu
197               740                      745                      750
198   gct gtg gtc ctc cag gta gac tat aaa gaa aat gtt ccc agc act aag      2544
199   Ala Val Val Leu Gln Val Asp Tyr Lys Glu Asn Val Pro Ser Thr Lys
200               755                      760                      765
201   gat tcc agt cca att cct cct cct cct cca cag att ttc cat ggc ctg      2592
202   Asp Ser Ser Pro Ile Pro Pro Pro Pro Pro Gln Ile Phe His Gly Leu
203               770                      775                      780
204   gac acg ctc acc gtg atg ggc att gca ttt gca gca ttt gtg atc gga      2640
205   Asp Thr Leu Thr Val Met Gly Ile Ala Phe Ala Ala Phe Val Ile Gly
206   785                      790                      795                      800
207   gcg ctc ctg acg ggg gcc ttg tgg tac atc tac tcc cac aca ggg gag      2688
208   Ala Leu Leu Thr Gly Ala Leu Trp Tyr Ile Tyr Ser His Thr Gly Glu
209               805                      810                      815
210   aca gca cga agg cag caa gtc cct acc tcg ccg cca gcc tcg gag aac      2736
211   Thr Ala Arg Arg Gln Gln Val Pro Thr Ser Pro Pro Ala Ser Glu Asn
212               820                      825                      830
213   agc agc gcg gcc cac agc atc ggc agc act cag agt acc ccc tgc tct      2784
214   Ser Ser Ala Ala His Ser Ile Gly Ser Thr Gln Ser Thr Pro Cys Ser
215               835                      840                      845
216   agc agc agc aca gcc taggtggaca gacagacgcc cgcccaccgc agccagggca      2839
217   Ser Ser Ser Thr Ala
218               850
219   gggcccgatg ccagtgtctgc gtgtccacag tcagaagtct tgatctgggc tcctgtaaa      2899
220   gaaagagtga atttcagtat acagacagcc agttctaccc accccttacc acggcccaca      2959
221   taaatgtgac cctggggcatc tgtcacacga aagctaagct ggtggccttc cccaccagcc      3019
222   cctcgcagga tgggggtttc aatgtgaaac atctgccagt tttgttttgt ttttttaatg      3079
223   ctgctttgtc caggtgtcca aacatccatc atttgggggtg gtctgtttta cagagtaaag      3139
224   gaggcggtga agggacgtca gctagtgtgt agagccaagg ggagacagct aggattctcg      3199
225   cctagctgaa ccaaggtgta aaatagaaga cacgctcc      3237
226   <210> SEQ ID NO 6
227   <211> LENGTH: 853
228   <212> TYPE: PRT
229   <213> ORGANISM: genomic
230   <400> SEQUENCE: 6
231   Met Ala Val Thr Ser His His Met Ile Pro Val Met Val Val Leu Met
232   1                      5                      10                      15
233   Ser Ala Cys Leu Ala Thr Ala Gly Pro Glu Pro Ser Thr Arg Cys Glu
234   20                      25                      30
235   Leu Ser Pro Ile Asn Ala Ser His Pro Val Gln Ala Leu Met Glu Ser
236   35                      40                      45
237   Phe Thr Val Leu Ser Gly Cys Ala Ser Arg Gly Thr Thr Gly Leu Pro
238   50                      55                      60
239   Arg Glu Val His Val Leu Asn Leu Arg Ser Thr Asp Gln Gly Pro Gly
240   65                      70                      75                      80
241   Gln Arg Gln Arg Glu Val Thr Leu His Leu Asn Pro Ile Ala Ser Val
242   85                      90                      95
243   His Thr His His Lys Pro Ile Val Phe Leu Leu Asn Ser Pro Gln Pro
244   100                      105                      110

```

PAGE: 6

VERIFICATION SUMMARY
PATENT APPLICATION US/09/183,543

DATE: 01/04/1999
TIME: 11:58:52

Input Set: I183543.RAW

Line	? Error/Warning	Original Text
------	-----------------	---------------

462	W Invalid/Missing Amino Acid Numbering	
-----	--	--